

## WATER MANAGEMENT

**Water Management** addresses the City Council Broad Goal of coordinating planning to balance infrastructure and resource needs within the budget. This program achieves this goal by delivering safer, reliable water and providing wastewater services. This program also reflects the City's commitment to federal and state regulations. In addition to capital program expenditures, approximately \$33.1 million of water development fee revenues over the five-year period will be transferred to the program budget to repay bonded debt. Approximately 25% (\$225.4 million) of the CIP has been identified to address the water and wastewater needs of the City. Highlights of the FY 2005/06 program include: 91<sup>st</sup> Avenue Wastewater Treatment Plant Improvements (\$4.7 million); Arsenic Mitigation Treatment (\$74.5 million); CAP Plant Regulatory Compliance (\$59.4 million); and the Water Reclamation Plant-Phase 3 (\$20.8 million).

Project #	Project Name	FY 2005/06 Adopted	FY 2006/07 Forecast	FY 2007/08 Forecast	FY 2008/09 Forecast	FY 2009/10 Forecast	Total	Estimated Annual Operating Impact	Volume 3 Page # Reference
<b>Water Management</b>									
V0402	91st Ave - Salt River Outfall Sewer	11,500.00	3,475.00	6,350.00	6,400.00	6,200.00	33,925.00	-	142
V6402	91st Ave Wastewater Treatment Plant	4,660.00	1,525.00	5,650.00	3,600.00	5,000.00	20,435.00	-	142
V9901	91st Ave Wastewater Treatment Plant - UP01 Expansion	41,972.00	1,000.00	3,000.00	5,000.00	3,000.00	53,972.00	-	142
V0204	Advanced Water Treatment Plant - Phase 3	13,100.00	-	-	-	-	13,100.00	-	143
W2105	Alameda/122nd Street Booster Pump Station	150.00	1,400.00	-	-	-	1,550.00	16.00	143
W3705	Architect / Engineer Services	1,710.00	150.00	-	-	-	1,860.00	-	143
W2106	Arsenic Mitigation Treatment	74,500.00	10,000.00	-	-	-	84,500.00	1,500.00	144
W9903	Booster Station Upgrades	575.00	-	-	-	-	575.00	2.00	144
W0504	CAP Plant Expansion	8,000.00	50,000.00	-	-	-	58,000.00	1,701.00	144
W0202	CAP Plant Regulatory Compliance	59,400.00	-	-	-	-	59,400.00	1,300.00	145
W0301	CAP Water Connection - Shea to McDonald	13,000.00	-	-	-	-	13,000.00	-	145
W9911	Chaparral Water Treatment Plant	83,582.40	-	-	-	-	83,582.40	-	145
W4702	Chaparral WTP Influent Waterline	5,242.80	-	-	-	-	5,242.80	1.00	146
W0302	Chaparral WTP Water Distribution System	9,500.00	-	-	-	-	9,500.00	2.00	146
V0501	Core North/South Sewer	889.00	87.50	802.50	819.00	-	2,598.00	-	146
W0501	Core North/South Water	889.00	87.50	802.50	819.00	-	2,598.00	-	147
W8515	Deep Well Recharge / Recovery Facilities	3,100.00	1,000.00	-	1,000.00	-	5,100.00	2.00	147
W0502	Inner Circle Booster Pump Station	3,400.00	-	-	-	-	3,400.00	2.00	147
V8620	Master Plan Update - Sewer	383.40	100.00	-	-	-	483.40	-	148
W8525	Master Plan Update - Water	766.80	300.00	-	-	-	1,066.80	-	148
V2101	Miller Road Sewer - Phase 3	1,300.00	4,000.00	-	-	-	5,300.00	-	148
V0401	Pump Station 96 (RWDS A) Modifications	500.00	-	-	-	-	500.00	-	149
V0203	Pump Station 97 (RWDS B) Modifications	500.00	-	-	-	-	500.00	-	149
V4001	Radio Telemetry - Monitoring Automation Citywide (Sewer)	655.50	50.00	50.00	50.00	50.00	855.50	-	149
W4001	Radio Telemetry - Monitoring Automation Citywide (Water)	1,064.40	125.00	125.00	125.00	125.00	1,564.40	-	150
W0503	Regional GAC Regeneration Facility	650.00	4,000.00	-	-	-	4,650.00	950.00	150
V9908	Relief Sewers - Citywide	1,121.64	500.00	500.00	500.00	500.00	3,121.64	-	150
V0502	RWDS Improvements	865.00	485.00	-	-	-	1,350.00	-	151
W0601	RWDS Water Quality Improvements	3,000.00	22,800.00	-	-	16,900.00	42,700.00	-	151
W0303	Security Enhancements	1,200.00	350.00	350.00	350.00	350.00	2,600.00	-	151
V3704	Sewer Collection System Improvements	3,310.77	1,450.00	650.00	600.00	700.00	6,710.77	-	152
V0703	Sewer Oversizing	1,835.70	-	-	-	-	1,835.70	-	152
V2102	Troon East RWDS Pump Station Modifications	700.00	-	-	-	-	700.00	-	152
W0401	Union Hills to Hualapai Transmission Line-Pima Rd	750.00	-	-	-	-	750.00	-	153
W9912	Water Distribution System Improvements	8,282.20	3,500.00	1,250.00	2,000.00	1,250.00	16,282.20	-	153
W0710	Water Oversizing	8,204.48	-	-	-	-	8,204.48	-	153
W0205	Water Quality Improvements - Southern Neighborhoods	11,500.00	-	-	-	-	11,500.00	-	154
W0602	Water Quality Laboratory Instrumentation	580.00	-	-	-	-	580.00	25.00	154
V0205	Water Reclamation Plant - Phase 3	20,750.00	-	-	-	-	20,750.00	-	154
W6160	Water Rights Acquisition	44,052.00	20,916.00	-	-	-	64,968.00	-	155
W8570	Waterline Replacements	16,491.00	-	-	-	-	16,491.00	3.00	155
W4708	Well Sites	20,142.11	1,000.00	3,000.00	1,000.00	3,000.00	28,142.11	-	155
W9913	Zone 12 - 13 Water System Improvements	8,528.00	-	-	-	-	8,528.00	-	156
W0304	Zone 12 - 13 Water Transmission Lines	6,680.00	-	-	-	-	6,680.00	5.00	156
W0603	Zone 14 - 16 Water Improvements	2,000.00	6,000.00	-	-	-	8,000.00	-	156

## Water Resources Department

## V0402 - 91st Avenue – Salt River Outfall Sewer

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$3,139,407      **Operating Impact:** \$0

**Location:** 91st Avenue in Phoenix

**Description:** Provides for modifications and improvements to the Salt River Outfall (SRO) sewer line which transmits sewer flow approximately 26 miles from Scottsdale's City limits to the Multi-City 91st Avenue Wastewater Treatment Plant located in Phoenix. The City of Scottsdale's proportionate cost share is derived through existing intergovernmental agreements with the Multi-City Sub-Regional Operating Group (SROG).

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Rates	11,500.0	3,475.0	6,350.0	6,400.0	6,200.0	33,925.0
	11,500.0	3,475.0	6,350.0	6,400.0	6,200.0	33,925.0

## V6402 - 91st Avenue Wastewater Treatment Plant

**Estimated Completion:** Program-not appl      **Estimated ITD Expenditures:** \$41,291,407      **Operating Impact:** \$0

**Location:** 91st Avenue in Phoenix

**Description:** Provides for modifications and improvements at the Multi-City 91st Avenue Wastewater Treatment Plant located in Phoenix. The City of Scottsdale's proportionate cost share is derived through existing intergovernmental agreements with the Multi-City Sub-Regional Operating Group (SROG).

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Rates	4,660.0	1,525.0	5,650.0	3,600.0	5,000.0	20,435.0
	4,660.0	1,525.0	5,650.0	3,600.0	5,000.0	20,435.0

## V9901 - 91st Avenue Wastewater Treatment Plant – UP01 Expansion

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$27,718,483      **Operating Impact:** \$0

**Location:** 91st Avenue in Phoenix

**Description:** Provides for additional sewer flow and solids handling capacity through contribution to the capital improvements at the Multi-City 91st Avenue Wastewater Treatment Plant located in Phoenix. Capacity expansion is due to planned increased demand. The City of Scottsdale's proportionate cost share is derived through existing intergovernmental agreements with the Multi-City Sub-Regional Operating Group (SROG).

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Development Fees	41,972.0	1,000.0	3,000.0	5,000.0	3,000.0	53,972.0
	41,972.0	1,000.0	3,000.0	5,000.0	3,000.0	53,972.0

## Water Resources Department

## V0204 - Advanced Water Treatment Plant – Phase 3

**Estimated Completion:** 01/31/2006      **Estimated ITD Expenditures:** \$7,350,400      **Operating Impact:** \$0

**Location:** Pima Road and Haulapai

**Description:** Expansion of the Advanced Water Treatment Facility from 12 to 16 million gallons per day capacity to provide adequate advanced treatment for recharge of water for future use.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
MPC Bonds	3,950.0	0.0	0.0	0.0	0.0	3,950.0
Sewer Development Fees	3,884.0	0.0	0.0	0.0	0.0	3,884.0
Water Resource Development Fees	5,266.0	0.0	0.0	0.0	0.0	5,266.0
	13,100.0	0.0	0.0	0.0	0.0	13,100.0

## W2105 - Alameda/122nd Street Booster Pump Station

**Estimated Completion:** 06/30/2007      **Estimated ITD Expenditures:** \$19,462      **Operating Impact:** \$16.0

**Location:** Alameda Road and 122nd Street

**Description:** Construct a 1.5 million gallons per day water booster pump station to deliver CAP water to zones 11, 12 and 13 in the area between Jomax Road, the existing Preserve, the designated Preserve Initiative area and 118th Street.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	150.0	1,400.0	0.0	0.0	0.0	1,550.0
	150.0	1,400.0	0.0	0.0	0.0	1,550.0

## W3705 - Architect/Engineer Services

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$1,484,368      **Operating Impact:** \$0

**Location:** Citywide

**Description:** Provides for consulting/engineering services on an as needed basis for minor future studies, planning or design.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	1,710.0	150.0	0.0	0.0	0.0	1,860.0
	1,710.0	150.0	0.0	0.0	0.0	1,860.0

## Water Resources Department

## W2106 - Arsenic Mitigation Treatment

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$14,251,982      **Operating Impact:** \$1,500.0

**Location:** Multiple locations

**Description:** Design and construct arsenic removal treatment facilities and related distribution systems at various satellite sites throughout the City to comply with the Safe Drinking Water Act Arsenic Rule.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Rates	74,500.0	10,000.0	0.0	0.0	0.0	84,500.0
	74,500.0	10,000.0	0.0	0.0	0.0	84,500.0

## W9903 - Booster Station Upgrades

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$246,336      **Operating Impact:** \$2.0

**Location:** Multiple locations

**Description:** Upgrade components of the water production system as needed to meet system demands.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	575.0	0.0	0.0	0.0	0.0	575.0
	575.0	0.0	0.0	0.0	0.0	575.0

## W0504 - CAP Plant Expansion

**Estimated Completion:** 04/30/2009      **Estimated ITD Expenditures:** \$0      **Operating Impact:** \$1,701.0

**Location:** Union Hills and Pima Rd.

**Description:** Expansion of the existing CAP Water Treatment Plant from its current capacity of 50 million gallons per day (mgd) to a minimum capacity of 75 mgd to meet planned demand. This will further reduce the use of groundwater and increase use of surface water.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	6,400.0	40,000.0	0.0	0.0	0.0	46,400.0
Water Rates	1,600.0	10,000.0	0.0	0.0	0.0	11,600.0
	8,000.0	50,000.0	0.0	0.0	0.0	58,000.0

## Water Resources Department

### W0202 - CAP Plant Regulatory Compliance

**Estimated Completion:** 06/30/2008      **Estimated ITD Expenditures:** \$2,824,700      **Operating Impact:** \$1,300.0

**Location:** Union Hills and Pima

**Description:** Addition of granular activated carbon facility at the CAP Water Treatment Plant in order to ensure compliance with the new Federal water quality rule regarding disinfection by-products (DBP).

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	15,840.0	0.0	0.0	0.0	0.0	15,840.0
Water Rates	43,560.0	0.0	0.0	0.0	0.0	43,560.0
	59,400.0	0.0	0.0	0.0	0.0	59,400.0

### W0301 - CAP Water Connection – Shea to McDonald

**Estimated Completion:** 06/30/2006      **Estimated ITD Expenditures:** \$10,298,400      **Operating Impact:** \$0

**Location:** Pima Freeway and Shea

**Description:** Construction of four miles of water mains in order to deliver CAP drinking water in south-central Scottsdale. Includes one mile of 20" water transmission main on Shea Boulevard from the Pima Freeway to Hayden Road. and three miles of 30" main on Hayden Road from Shea Boulevard to the Arizona Canal.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	220.0	0.0	0.0	0.0	0.0	220.0
Water Rates	12,780.0	0.0	0.0	0.0	0.0	12,780.0
	13,000.0	0.0	0.0	0.0	0.0	13,000.0

### W9911 - Chaparral Water Treatment Plant

**Estimated Completion:** 06/30/2006      **Estimated ITD Expenditures:** \$80,170,300      **Operating Impact:** \$0

**Location:** East of southeast corner of Hayden Road  
/McDonald Drive

**Description:** Construction of the new Chaparral Water Treatment Plant to treat the City's Salt River Project allocation. The capacity is 30 million gallons per day, which is sufficient to meet projected demands south of the Arizona Canal. This plant is located on the southeast corner of Hayden Road and McDonald Drive.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
GO Bonds	1,300.0	0.0	0.0	0.0	0.0	1,300.0
MPC Bonds	55,904.5	0.0	0.0	0.0	0.0	55,904.5
Water Development Fees	2,064.3	0.0	0.0	0.0	0.0	2,064.3
Water Rates	24,313.6	0.0	0.0	0.0	0.0	24,313.6
	83,582.4	0.0	0.0	0.0	0.0	83,582.4

## Water Resources Department

### W4702 - Chaparral WTP Influent Waterline

**Estimated Completion:** 07/31/2006      **Estimated ITD Expenditures:** \$5,062,600      **Operating Impact:** \$1.0

**Location:** 82nd Street west of canal, south on 82nd Street,  
across McDonald Drive to Chaparral WTP

**Description:** Construction of a new 54-inch diameter influent waterline to move the City's Salt River Project allocation from the Arizona Canal to the new Chaparral Water Treatment Plant.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	524.3	0.0	0.0	0.0	0.0	524.3
Water Rates	4,718.5	0.0	0.0	0.0	0.0	4,718.5
	5,242.8	0.0	0.0	0.0	0.0	5,242.8

### W0302 - Chaparral WTP Water Distribution System

**Estimated Completion:** 06/30/2006      **Estimated ITD Expenditures:** \$9,317,600      **Operating Impact:** \$2.0

**Location:** Multiple locations

**Description:** Construction of two miles of 42" water transmission main on Hayden Road from McDonald Drive to Indian School Road in order to deliver water from the new Chaparral Water Treatment Plant to customers in that area.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
MPC Bonds	9,020.0	0.0	0.0	0.0	0.0	9,020.0
Water Rates	480.0	0.0	0.0	0.0	0.0	480.0
	9,500.0	0.0	0.0	0.0	0.0	9,500.0

### V0501 - Core North/South Sewer

**Estimated Completion:** 12/31/2009      **Estimated ITD Expenditures:** \$0      **Operating Impact:** \$0

**Location:** Stacked 40 boundary to Hayden Road

**Description:** Construct sewer lines within the Stacked 40s northern and southern areas consistent with the development agreement.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Development Fees	889.0	87.5	802.5	819.0	0.0	2,598.0
	889.0	87.5	802.5	819.0	0.0	2,598.0

## PROJECT DESCRIPTIONS

## Water Management

### Water Resources Department

#### W0501 - Core North/South Water

**Estimated Completion:** 12/31/2009      **Estimated ITD Expenditures:** \$0      **Operating Impact:** \$0

**Location:** Stacked 40 boundary to Hayden Road

**Description:** Construct water lines within the Stacked 40s northern and southern areas consistent with the development agreement.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	889.0	87.5	802.5	819.0	0.0	2,598.0
	889.0	87.5	802.5	819.0	0.0	2,598.0

#### W8515 - Deep Well Recharge/Recovery Facilities

**Estimated Completion:** 06/30/2009      **Estimated ITD Expenditures:** \$730,265      **Operating Impact:** \$2.0

**Location:** Multiple locations

**Description:** Design and construct deep well water recharge and recovery facilities to ensure the long-term sustainability of the City's northern well field.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Resource Development Fees	3,100.0	1,000.0	0.0	1,000.0	0.0	5,100.0
	3,100.0	1,000.0	0.0	1,000.0	0.0	5,100.0

#### W0502 - Inner Circle Booster Pump Station

**Estimated Completion:** 07/31/2006      **Estimated ITD Expenditures:** \$5,021      **Operating Impact:** \$2.0

**Location:** Inner Circle Drive and Pima

**Description:** Design and construct a new booster pump station at Inner Circle Drive and Pima Road to deliver water from the new Chaparral Water Treatment Plant to Shea Boulevard and Pima Freeway areas. This project is required for back up to the CAP water deliveries in the Shea Boulevard area east of Pima Road.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Rates	3,400.0	0.0	0.0	0.0	0.0	3,400.0
	3,400.0	0.0	0.0	0.0	0.0	3,400.0

## Water Resources Department

## V8620 - Master Plan Update – Sewer

Estimated Completion: 06/30/2007

Estimated ITD Expenditures: \$217,600

Operating Impact: \$0

Location: Citywide

**Description:** Provides for master plan updates for wastewater system management needs including Federal regulatory impacts and capital project needs.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Sewer Development Fees	383.4	100.0	0.0	0.0	0.0	483.4
	383.4	100.0	0.0	0.0	0.0	483.4

## W8525 - Master Plan Update – Water

Estimated Completion: 06/30/2007

Estimated ITD Expenditures: \$433,100

Operating Impact: \$0

Location: Citywide

**Description:** Provides for master plan updates for water system management needs including Federal regulatory impacts and capital project needs.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Water Development Fees	605.8	300.0	0.0	0.0	0.0	905.8
Water Resource Development Fees	161.0	0.0	0.0	0.0	0.0	161.0
	766.8	300.0	0.0	0.0	0.0	1,066.8

## V2101 - Miller Road Sewer – Phase 3

Estimated Completion: 06/30/2007

Estimated ITD Expenditures: \$85,888

Operating Impact: \$0

Location: Miller Road and McKellips

**Description:** Replacement of the existing sewer line in Miller Road from McDowell Road south to the Princess Metering Station to accommodate growth and revitalization impacts.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Sewer Development Fees	1,300.0	4,000.0	0.0	0.0	0.0	5,300.0
	1,300.0	4,000.0	0.0	0.0	0.0	5,300.0



## Water Resources Department

### V0401 - Pump Station 96 (RWDS A) Modifications

**Estimated Completion:** 6/30/06

**Estimated ITD Expenditures:** \$126,400

**Operating Impact:** \$0

**Location:** Hualapai Drive and Pima Road

**Description:** Perform metering improvements at Reclaimed Water Distribution System (RWDS) Pump Station #96 (RWDS Pump Station "A") to more accurately account for non-potable water deliveries to RWDS users. These improvements were recommended in a metering study performed by Greeley and Hansen Engineers

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
RWDS Fund	500.0	0.0	0.0	0.0	0.0	500.0
	500.0	0.0	0.0	0.0	0.0	500.0

### V0203 - Pump Station 97 (RWDS B) Modifications

**Estimated Completion:** 6/30/06

**Estimated ITD Expenditures:** \$74,400

**Operating Impact:** \$0

**Location:** Pima Road - 1/2 mile south of Pinnacle Peak Road

**Description:** Modify existing Pump Station #97 (RWDS Pump Station "B") to be an enclosed structure. This project will enable the City to enclose the Pump Station with a roof to minimize noise in the vicinity of the pump station

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
RWDS Fund	500.0	0.0	0.0	0.0	0.0	500.0
	500.0	0.0	0.0	0.0	0.0	500.0

### V4001 - Radio Telemetry Monitoring Automation Citywide (Sewer)

**Estimated Completion:** 06/30/2010

**Estimated ITD Expenditures:** \$380,660

**Operating Impact:** \$0

**Location:** Citywide

**Description:** Construct radio telemetry facilities at new and existing wastewater facilities to continue to improve operational efficiency through automation.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Rates	655.5	50.0	50.0	50.0	50.0	855.5
	655.5	50.0	50.0	50.0	50.0	855.5

## Water Resources Department

## W4001 - Radio Telemetry Monitoring Automation Citywide (Water)

Estimated Completion: 06/30/2010

Estimated ITD Expenditures: \$698,140

Operating Impact: \$0

Location: Citywide

**Description:** Construct radio telemetry facilities at new and existing water facilities to continue to improve operational efficiency through automation.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Water Rates	1,064.4	125.0	125.0	125.0	125.0	1,564.4
	1,064.4	125.0	125.0	125.0	125.0	1,564.4

## W0503 - Regional GAC Regeneration Facility

Estimated Completion: 12/31/2007

Estimated ITD Expenditures: \$0

Operating Impact: \$950.0

**Location:** Outside of Scottsdale – exact location not yet determined

**Description:** Provides for the City's share of costs for a regional Granular Activated Carbon (GAC) Regeneration Facility. Due to the unfunded Federal water quality disinfection by-product rule, the treatment technology utilizes granular activated carbon (GAC). In contrast to purchasing new raw material when needed, GAC can be regenerated off-site resulting in considerable operational cost savings. This regional facility is proposed to be jointly funded by the communities of Phoenix, Scottsdale, Mesa, Tempe, Glendale, Chandler and Peoria. The GAC will be utilized in the water treatment process at the CAP Water Treatment Plant and at the Chaparral Water Treatment Plant.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Water Development Fees	0.0	1,200.0	0.0	0.0	0.0	1,200.0
Water Rates	650.0	2,800.0	0.0	0.0	0.0	3,450.0
	650.0	4,000.0	0.0	0.0	0.0	4,650.0

## V9908 - Relief Sewers – Citywide

Estimated Completion: 06/30/2010

Estimated ITD Expenditures: \$1,141,212

Operating Impact: \$0

Location: Citywide

**Description:** Design and construction of relief sewer capacity at various locations throughout the City as the need is identified in the capital program.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Sewer Development Fees	1,121.6	500.0	500.0	500.0	500.0	3,121.6
	1,121.6	500.0	500.0	500.0	500.0	3,121.6

## PROJECT DESCRIPTIONS

## Water Management

### Water Resources Department

#### V0502 - RWDS Improvements

**Estimated Completion:** 06/30/2007

**Estimated ITD Expenditures:** \$0

**Operating Impact:** \$0

**Location:** North of CAP Canal

**Description:** Provides for improvements to Reclaimed Water Distribution System (RWDS) pipeline pump stations and reservoirs. This project will be fully funded by the golf courses receiving reclaimed effluent from the Water Campus through the RWDS.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
RWDS Fund	865.0	485.0	0.0	0.0	0.0	1,350.0
	865.0	485.0	0.0	0.0	0.0	1,350.0

#### W0601 - RWDS Water Quality Improvements

**Estimated Completion:** 04/30/2010

**Estimated ITD Expenditures:** \$0

**Operating Impact:** \$0

**Location:** Union Hills and Pima Rd.

**Description:** Provides for system modifications to improve water quality for the Reclaimed Water Distribution System (RWDS) golf courses. This project will be fully funded by the golf courses receiving reclaimed effluent from the Water Campus RWDS. The project will consist of improvements to the Advanced Water Treatment (AWT) Facility at the Water Campus that will reduce the salinity in the golf course reclaimed effluent deliveries. As increases in the salinity of RWDS water deliveries has made it difficult for the golf courses to grow turf, this project will address these issues. The project also includes funding for a brine management program in later years (FY 2009/10). The brine management program will deal with the waste stream from the AWT that in the interim will be placed into the sewer system. Considering the City's ownership of the Stadium and Desert Course at the Tournament Players Club (TPC), the City may be a financial partner in this project.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Contributions	3,000.0	22,800.0	0.0	0.0	16,900.0	42,700.0
	3,000.0	22,800.0	0.0	0.0	16,900.0	42,700.0

#### W0303 - Security Enhancements

**Estimated Completion:** 06/30/2010

**Estimated ITD Expenditures:** \$384,195

**Operating Impact:** \$0

**Location:** Citywide

**Description:** Provides for security enhancements at water and wastewater facilities identified in the Water Resources Vulnerability Assessment, including upgrade of existing prevention, detection and response systems as needed.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Rates	1,200.0	350.0	350.0	350.0	350.0	2,600.0
	1,200.0	350.0	350.0	350.0	350.0	2,600.0

## Water Resources Department

### V3704 - Sewer Collection System Improvements

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$3,048,783      **Operating Impact:** \$0

**Location:** Citywide

**Description:** Design and construct sewer lines and rehabilitate sewer manholes in the aging sewer system.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Rates	3,310.8	1,450.0	650.0	600.0	700.0	6,710.8
	3,310.8	1,450.0	650.0	600.0	700.0	6,710.8

### V0703 - Sewer Oversizing

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$1,439,000      **Operating Impact:** \$0

**Location:** Citywide

**Description:** Provides funds for the City to oversize lines and facilities to meet future ultimate capacity to Master Plan standards.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
GO Bonds	192.3	0.0	0.0	0.0	0.0	192.3
Sewer Development Fees	1,643.4	0.0	0.0	0.0	0.0	1,643.4
	1,835.7	0.0	0.0	0.0	0.0	1,835.7

### V2102 - Troon East RWDS Pump Station Modifications

**Estimated Completion:** 06/30/06      **Estimated ITD Expenditures:** \$433,900      **Operating Impact:** \$0

**Location:** Approximate locatiion - Happy Valley Road/Alma School Road

**Description:** Modifications to the Troon East RWDS pump station which will ensure that 700 gpm can be pumped through this part of the RWDS at all times.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Sewer Development Fees	700.0	0.0	0.0	0.0	0.0	700.0
	700.0	0.0	0.0	0.0	0.0	700.0

## PROJECT DESCRIPTIONS

## Water Management

### Water Resources Department

#### W0401 - Union Hills to Hualapai Transmission Line – Pima Rd.

**Estimated Completion:** 06/30/2006      **Estimated ITD Expenditures:** \$41,400      **Operating Impact:** \$0

**Location:** Pima Road from Union Hills to Hualapai

**Description:** Construct a water transmission main from the Water Campus via Booster Pump Station #55B to the reservoirs in the DC Ranch Development to meet planned demand in the area.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	750.0	0.0	0.0	0.0	0.0	750.0
	750.0	0.0	0.0	0.0	0.0	750.0

#### W9912 - Water Distribution System Improvements

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$5,301,567      **Operating Impact:** \$0

**Location:** Citywide

**Description:** Provides for water distribution system improvements needed due to age of the system and increasing demand. Includes replacement of mains, meters and valves, as well as design and construction of new water mains at various locations throughout the distribution system to improve service and to reduce operating costs.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Rates	8,282.2	3,500.0	1,250.0	2,000.0	1,250.0	16,282.2
	8,282.2	3,500.0	1,250.0	2,000.0	1,250.0	16,282.2

#### W0710 - Water Oversizing

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$6,406,309      **Operating Impact:** \$0

**Location:** Citywide

**Description:** Provides funds for the City to oversize lines and facilities to meet future ultimate capacity to Master Plan standards.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	8,204.5	0.0	0.0	0.0	0.0	8,204.5
	8,204.5	0.0	0.0	0.0	0.0	8,204.5

## Water Resources Department

## W0205 - Water Quality Improvements – Southern Neighborhoods

Estimated Completion: 06/30/2010

Estimated ITD Expenditures: \$768,700

Operating Impact: \$0

Location: Thomas Road and Pima Freeway

**Description:** Provides for improvements to the City's existing Superfund Central Groundwater Treatment Facility to address EPA mandated arsenic and nitrate levels in drinking water. In addition, the project will improve the quality of potable water being produced at this site, by reducing total dissolved solids and hardness. This project will also reduce the excessive reservoir scaling currently experienced.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Water Development Fees	400.0	0.0	0.0	0.0	0.0	400.0
Water Rates	11,100.0	0.0	0.0	0.0	0.0	11,100.0
	11,500.0	0.0	0.0	0.0	0.0	11,500.0

## W0602 - Water Quality Laboratory Instrumentation

Estimated Completion: 06/30/2006

Estimated ITD Expenditures: \$0

Operating Impact: \$25.0

Location: Citywide

**Description:** Purchase specialized laboratory equipment to identify a wider range of water contaminants in order to insure the safety and health of the City's drinking water.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
Water Rates	580.0	0.0	0.0	0.0	0.0	580.0
	580.0	0.0	0.0	0.0	0.0	580.0

## V0205 - Water Reclamation Plant – Phase 3

Estimated Completion: 01/31/2006

Estimated ITD Expenditures: \$19,463,700

Operating Impact: \$0

Location: 8787 E. Hualapai Drive

**Description:** Expansion of the Water Campus Wastewater Reclamation Plant from 12 to 20 million gallons per day capacity to meet planned demand. Additional facilities would consist of a primary and secondary sedimentation basin, aeration basin, filtration basins and the associated pumps, electrical and instrumentation features.

Funding by Source(s) (in thousands of dollars)	Adopted FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
MPC Bonds	17,300.4	0.0	0.0	0.0	0.0	17,300.4
Sewer Development Fees	3,449.6	0.0	0.0	0.0	0.0	3,449.6
	20,750.0	0.0	0.0	0.0	0.0	20,750.0

## PROJECT DESCRIPTIONS

## Water Management

### Water Resources Department

#### W6160 - Water Rights Acquisition

**Estimated Completion:** 06/30/2007      **Estimated ITD Expenditures:** \$41,915,615      **Operating Impact:** \$0

**Location:** Multiple locations

**Description:** Provides for acquisition, development and management of water resources to meet requirements of build-out demands, securing a long-term assured water supply and the Congressional passage of the Arizona Water Settlement Act and signing of the Gila River Indian Community Agreement Water Lease.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Resource Development Fees	44,052.0	20,916.0	0.0	0.0	0.0	64,968.0
	44,052.0	20,916.0	0.0	0.0	0.0	64,968.0

#### W8570 - Waterline Replacements

**Estimated Completion:** 06/30/2009      **Estimated ITD Expenditures:** \$13,119,125      **Operating Impact:** \$3.0

**Location:** Citywide

**Description:** Design and construct waterline repair/replacement projects at various locations throughout the city to upgrade existing plastic water lines to acceptable standards.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Rates	16,491.0	0.0	0.0	0.0	0.0	16,491.0
	16,491.0	0.0	0.0	0.0	0.0	16,491.0

#### W4708 - Well Sites

**Estimated Completion:** 06/30/2010      **Estimated ITD Expenditures:** \$14,330,716      **Operating Impact:** \$0

**Location:** Multiple locations

**Description:** Design and construct new wells and upgrade existing wells at locations determined consistent with the Master Plan for water system demand.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	20,142.1	1,000.0	3,000.0	1,000.0	3,000.0	28,142.1
	20,142.1	1,000.0	3,000.0	1,000.0	3,000.0	28,142.1

## Water Resources Department

## W9913 - Zone 12-13 Water System Improvements

**Estimated Completion:** 10/31/2005      **Estimated ITD Expenditures:** \$6,671,751      **Operating Impact:** \$0

**Location:** 114th Street and Dixileta Drive

**Description:** Construction of a 3 million gallon Zone 12 reservoir in the vicinity of 114th Street and Dixileta Drive and the Zone 13 booster pump station at Alma School Road and Dixileta Drive.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	8,528.0	0.0	0.0	0.0	0.0	8,528.0
	8,528.0	0.0	0.0	0.0	0.0	8,528.0

## W0304 - Zone 12-13 Water Transmission Lines

**Estimated Completion:** 02/28/06      **Estimated ITD Expenditures:** \$4,250,083      **Operating Impact:** \$5.0

**Location:** 114th Street and Dixileta Drive

**Description:** Construction of two water transmission lines. Includes a Zone 12 water main on 114th Street from Dynamite Boulevard to the new reservoir site at 114th Street and Dixileta Drive and a Zone 13 water line from the new reservoir site to 114th Street then south to Jomax Road.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	6,680.0	0.0	0.0	0.0	0.0	6,680.0
	6,680.0	0.0	0.0	0.0	0.0	6,680.0

## W0603 - Zone 14-16 Water Improvements

**Estimated Completion:** 06/30/2007      **Estimated ITD Expenditures:** \$0      **Operating Impact:** \$0

**Location:** Carefree Highway and Bartlett Road

**Description:** Design and construct a 2.5 million gallon reservoir, booster pump station and install approximately 10,000 lineal feet of 16" water line in Carefree Highway to Bartlett Road to serve Wildcat Hills in the far reaches of the City limits.

<b>Funding by Source(s)</b> (in thousands of dollars)	<b>Adopted FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>	<b>FY 2009/10</b>	<b>Total</b>
Water Development Fees	2,000.0	6,000.0	0.0	0.0	0.0	8,000.0
	2,000.0	6,000.0	0.0	0.0	0.0	8,000.0